

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1 and 101 recite that "the second circuit is configured to select either one of the sensor portion and the liquid crystal element portion." Similarly, independent claim 100 recites that "the second circuit is configured to select either one of the sensor portion and the light emitting element portion."

Independent claim 2 recites that "the first logical circuit is electrically connected to the sensor portion, and the second logical circuit is electrically connected to the light emitting element portion" and that "the second circuit is so configured that either one of the first logical circuit and the second logical circuit outputs a pulse signal." Similarly, independent claim 3 recites that "the first logical circuit is electrically connected to the sensor portion, and the second logical circuit is electrically connected to the liquid

crystal element portion" and that "the second circuit is so configured that either one of the first logical circuit and the second logical circuit outputs a pulse signal."

Independent claim 4 recites that "the sensor portion comprises a first TFT, and the light emitting element portion comprises a second TFT," that "a gate of the first TFT is electrically connected to the first logical circuit, and a gate of the second TFT is electrically connected to the second logical circuit," and that "the second circuit is so configured that either one of the first logical circuit and the second logical circuit outputs a pulse signal." Similarly, independent claim 5 recites that "the sensor portion comprises a first TFT, and the liquid crystal element portion comprises a second TFT," that "a gate of the first TFT is electrically connected to the first logical circuit, and a gate of the second TFT is electrically connected to the second logical circuit," and that "the second circuit is so configured that either one of the first logical circuit and the second logical circuit outputs a pulse signal."

Independent claim 6 recites that "the sensor portion comprises a first TFT, and the light emitting element portion comprises a second TFT" and that "the second circuit is so configured that, when one of the first logical circuit and the second logical circuit outputs a non-selection signal to one of the first TFT and the second TFT, the other of the first logical circuit and the second logical circuit outputs a selection signal based on the timing signal to the other of the first TFT and the second TFT." Similarly, independent claim 7 recites that "the sensor portion comprises a first TFT, and the liquid crystal element portion comprises a second TFT" and that "the second circuit is so configured that, when one of the first logical circuit and the second logical circuit outputs a non-selection signal to one of the first TFT and the second TFT, the other of the first logical circuit and the second logical circuit outputs a selection signal based on the timing signal to the other of the first TFT and the second TFT."

For the reasons provided below, Chiyou and Kubota, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

In the "Response to Arguments" section, the Official Action asserts that "the first circuit ... outputs signals for *both* the light emitting elements as well as the light receiving elements which means that it can select either one of a sensor portion and a liquid crystal element portion of light emitting element portion' as claimed" and that "[t]he second circuit is merely a power saving means but the operation is pretty much the same, the first circuit outputs to the second circuit which relays the signals to the display elements and the light detecting elements" (page 9, Paper No. 20090601; italics in original; underlining added). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

Figure 10 of Chiyou teaches that the LCD elements and the photodiode elements are operated completely independently of each other; therefore, the Applicant respectfully submits that Chiyou's driver circuits 1011 and 1009 are not configured to select either one of a sensor portion and a liquid crystal element portion.

Kubota does not cure the deficiencies in Chiyou. Kubota does not teach or suggest that a second circuit selects either one of a sensor portion and a liquid crystal element portion. Rather, Figure 75 of Kubota appears to merely teach that a second circuit works as a switching circuit.

Therefore, the Applicant respectfully submits that Chiyou and Kubota, either alone or in combination, do not teach or suggest that a second circuit is configured to select either one of a sensor portion and a liquid crystal element portion or a light emitting element portion. Since Chiyou and Kubota do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Furthermore, there is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Chiyou and Kubota or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on

various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be modified in the manner asserted in the Official Action, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (emphasis in original). KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action concedes that Chiyou does not teach "a second circuit as claimed" (page 4, Paper No. 20090601). The Official Action relies on Kubota to allegedly teach "a second circuit located after the shift registers in a display driver which outputs pulses to the display electrodes" (Id.). Without any specific references to Chiyou or Kubota in support and without establishing the level of ordinary skill in the art at the time of the present invention, the Official Action asserts that "[i]t would have been obvious to ... use the specialized shift register and switching section of Kubota instead of the generic shift registers of Chiyou in order to reduce power consumption" (Id.). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

Kubota only discloses a display device. The Official Action has not shown that Kubota is reasonably pertinent to Chiyou, which relates to photodiodes and image sensors. As such, it is not clear why one of ordinary skill in the art at the time of the present invention would have looked to Kubota to modify Chiyou's disclosure. Therefore, the Applicant respectfully submits that the Official Action has not provided a

proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Chiyou and Kubota or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Official Action rejects claims 62-67 as obvious based on the combination of Chiyou, Kubota and U.S. Patent No. 6,246,180 to Nishigaki. Please incorporate the arguments above with respect to the deficiencies in Chiyou and Kubota. Nishigaki does not cure the deficiencies in Chiyou and Kubota. The Official Action relies on Nishigaki to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Nishigaki to allegedly teach "an LED type matrix display which uses a selection TFT, a driver TFT and a reset TFT in order to drive the LED" (page 9, Paper No. 20090601). However, Chiyou, Kubota and Nishigaki, either alone or in combination, do not teach or suggest that Chiyou and Kubota should be modified so that a second circuit is configured to select either one of a sensor portion and a liquid crystal element portion or a light emitting element portion; or why one of ordinary skill in the art at the time of the present invention would have looked to Kubota to modify Chiyou's disclosure. Since Chiyou, Kubota and Nishigaki do not teach or suggest all the claim limitations and since there is insufficient reason to combine Chiyou, Kubota and Nishigaki, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

  
Eric J. Robinson  
Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C.  
PMB 955  
21010 Southbank Street  
Potomac Falls, Virginia 20165  
(571) 434-6789